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EXAMINER

LUDWIG, MATTHEW J

ART UNIT PAPER NUMBER

2178

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/452,925

Applicant(s)

TAKAHASHI, KUNIKAZU

Examiner

Matthew J. Ludwig

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is responsive to communications. RCE filed 6/16/05.
2. Claims 1-17, and 19 are pending in the case. Claim 1 is an independent claim.
3. Claims 1, 4, and 5, ***remain rejected*** under 35 U.S.C. 103(a) as being unpatentable over True in view of Shibata. Claim 2 ***remains rejected*** under 35 U.S.C. 103(a) as being unpatentable over True in view of Shibata and in further view of Luciw.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over True et al., USPN 6,112,172 filed (3/31/98) in view of Shibata, USPN 5,678,054 filed (10/5/94).**

**In reference to independent claim 1 and 5, True teaches:**

- The user types a query, consisting of a combination of words of interest, into a query window (compare to “*an entry unit for entering alphanumeric string information*”). See column 3, lines 35-40.

- The generated keywords found in memory are matched in accordance with interest levels predefined by the user. The keywords are selected and placed in specific fields based upon the search query and related words (compare to “*a display unit for displaying keywords*”).

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*comprised of predetermined alphanumeric strings in a plurality of corresponding fields on a display screen*"). See column 6, lines 5-45.

- When performing a query, the search engine may search for words with the same root as words in the query. For example, if "addiction" is a query term, the search engine may search for "addict", "addiction", "addictive", and "addicted". To graphically display the results of a query, the process obtains the window size entered by the user in window size box (compare to, *"extracting a corresponding group of keywords from a dictionary for which matches are obtained by comparison with ones of the group of extracted keywords of the dictionary and the pluralities of similar words"*). See column 5, lines 15-26.

The keywords found in the user query are illustrated in Figure 2. The related terms are displayed in separate fields in accordance with the display of the interest level threshold with a horizontal interest level threshold line in the result window (compare to *"wherein at least two fields on the display unit each display at least one keyword from the group of extracted keyword"*). See column 6, lines 3-47.

The reference teaches a transcript which consists of words. Furthermore, the transcript contains confidence levels, start times, and end times that the speech recognizer has estimated for recognized words. The transcripts performs similar tasks as those of a dictionary, however, the reference does not explicitly teach the utilization of dictionary for the extraction of keywords or related terms; however, the Shibata discloses a dictionary and the common functions of a dictionary as having a primary data corresponding to a secondary data. Among the secondary data are synonyms that are linked to the primary data (Figure 1, column 10 and 11). It would have been obvious to one of ordinary skill in the art, having the teachings of True and Shibata

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before him at the time the invention was made, to modify the search and retrieval methods taught by True to include the dictionary methods of Shibata, because such a combination would have advance data searching by modifying the search to the user's input based on terms within a dictionary.

**In reference to dependent claim 4, True teaches:**

When performing a query, the search engine may search for words with the same root as words in the query. For example, if "addiction" is a query term, the search engine may search for "addict", "addiction", "addictive", and "addicted". To graphically display the results of a query, the process obtains the window size entered by the user in window size box (compare to *"extracting a corresponding group of keywords from a dictionary for which matches are obtained by comparison with ones of the group of extracted keywords of the dictionary and the pluralities of similar words"*). See column 5, lines 15-26.

The keywords found in the user query are illustrated in Figure 2. The related terms are displayed in separate fields in accordance with the display of the interest level threshold with a horizontal interest level threshold line in the result window (compare to *"wherein at least two fields on the display unit each display at least one keyword from the group of extracted keyword"*). See column 6, lines 3-47.

6. **Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over True in view of Shibata and in further view of Luciw, USPN 5,625,814 filed (5/15/95).**

**In reference to dependent claim 2, True teaches:**

An interactive search and retrieval method based upon a user query. True and Shibata do not explicitly disclose successively cutting out strings to match in a dictionary. However, Luciw discloses analyzing an input string that extracts and checks a string for a meaning. It then successively extracts strings until the entire string is analyzed. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the invention of Luciw with the inventions of True and Shibata, because such a combination would have furthered the idea of customized searching by analyzing the entire string to create an appropriate query.

**7. *Claims 3, 6-8, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over True in view of Shibata and in further view of Microsoft Bookshelf Basics Edition (herein Bookshelf; Microsoft Corporation (c) 1987-1996).***

**Regarding dependent claim 3,** True and Shibata do not explicitly disclose a dictionary containing conjugated strings. However, Bookshelf teaches a dictionary that does contain conjugated forms of words (Figure 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Bookshelf with the inventions of True and Shibata. Such a combination would have made the dictionary more flexible by enabling the search of words in conjugated forms, as was known and typical of dictionaries in the art at the time of the invention.

**Regarding dependent claim 6,** True and Shibata do not explicitly disclose designating keywords displayed all at once as provisional primary entries and displaying them in a first color. However, Bookshelf teaches the display of a set of keywords all at once in a certain configuration and uses different colored text for certain terms (Figure 3). It would have been

obvious to one of ordinary skill in the art at the time of the invention to combine the inventions of True, Shibata, and Bookshelf and use the text display and text colors to indicate provisional primary entries. This combination would have created a dictionary that a user could more quickly and easily recognize specific word types (e.g. via color), alleviating any user hassle of determining these elements by themselves.

**Regarding dependent claims 7-8,** Bookshelf teaches a display field in which a word is replaced by another word (Figure 4) that is manually selected from a list produced from a first input (Figure 3), or may be changed via keyboard.

**Regarding dependent claims 14-17,** Bookshelf teaches an input method that enables a user to input a string and to press enter to confirm the entry (Figure 6). While the user enters information, display fields are sequentially selected according to the partial input (Figures 7 and 6). Upon the enter instruction, the input is confirmed and the input is completed automatically (Figure 4). After the input is confirmed, the confirmed output is shown highlighted in a different color (Figure 4). Although Bookshelf does not explicitly teach the manual confirmation of all display fields of the primary entry state, it would have been obvious to one of ordinary skill in the art at the time of the invention to extend the entry confirmation method as discussed above to include the confirmation of all display fields. Such a modification would have given the user more control over the results and would have resulted in a user receiving more personalized findings.

8. *Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over True in view of Shibata and in further view of Fujisawa et al (herein Fujisawa; USPN 4654873 –*

*filing date 10/30/1985) and Houser et al (herein Houser; USPN 5774859 – filing date 1/3/1995).*

**Regarding dependent claims 9-13,** True teaches the use of a keyboard for entering input. True and Shibata do not explicitly disclose using a handwritten or speech input. However, Howser discloses evaluating speech input and receiving vocabulary (abstract). Fujisawa discloses the analysis of handwritten input and converting it into digital form (col 1, ln 45 – col 2, ln 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the inventions of True, Shibata, Houser, and Fujisawa, including dividing up the handwritten text for analysis in the dictionary. It follow that various input methods necessitated by handwritten and speech input methods would also have been obvious to one of ordinary skill in the art at the time of the invention. This combination would have extended the invention by allowing multiple input methods, enabling a variety of users to access the invention (e.g. a user who is unable to use a keyboard).

#### ***Response to Arguments***

9. Applicant's arguments filed 8/11/04 have been fully considered but they are not persuasive.

Applicant argues on pages 10 and 11 of the amendment that nether reference alone nor the combination of the references teaches or suggests all limitations of claim 1. Applicant further states that True and Shibata fail to disclose a 'word dictionary for storing a plurality of keywords, each keyword corresponding to one of the plurality of fields'. The Examiner notes that (as presently claimed), the limitations do not preclude the utilization of True for providing a dictionary of terms. The reference teaches a transcript which consists of words. Furthermore, the

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transcript contains confidence levels, start times, and end times that the speech recognizer has estimated for recognized words. The transcripts performs similar tasks as those of a dictionary, however, the reference does not explicitly teach the utilization of dictionary for the extraction of keywords or related terms; however, the Shibata discloses a dictionary and the common functions of a dictionary as having a primary data corresponding to a secondary data. Among the secondary data are synonyms that are linked to the primary data (Figure 1, column 10 and 11). It would have been obvious to one of ordinary skill in the art, having the teachings of True and Shibata before him at the time the invention was made, to modify the search and retrieval methods taught before him at the time the invention was made, to modify the search and retrieval methods taught by True to include the dictionary methods of Shibata, because such a combination would have advance data searching by modifying the search to the user's input based on terms within a dictionary.

It is unclear to the Examiner what the limitation, 'a word dictionary for storing a plurality of keywords, each keyword corresponding to one of the plurality of fields *and to a plurality of similar words for deducing the keyword*' provides the user. More specifically, the Examiner could interpret '*a plurality of similar words for deducing the keyword*' multiple different ways. Because the claim limitations are to be given their broadest reasonable interpretation within the scope of the art, the keyword methods of True combined with the actually dictionary methods of Shibata provide a proficient suggestion of the keyword extraction methods of the claimed invention.

Applicant argues on page 10 of the amendment that the reference does not teach or suggest, '*maintaining a dictionary entry for each keyword that corresponds each keyword with*

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*a specifically identified one of the plurality of display fields*'. However, independent claim 1 fails to disclose similar language as that argued in the amendment. The claim places a keyword in its corresponding field, but fails to mention '*specifically identified*' one of a plurality of display fields. The Examiner believes Figure 2 illustrates keywords placed in different fields of a window. Each field related to an interest level threshold. Adjusting the interest level threshold changes the look and feel of the form fields and the related keywords located in the corresponding fields. This provides a suggestion of displaying extracted keywords in corresponding fields based on an interest level threshold.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Balough et al.,                      USPN 5,493,677                      filed (6/8/1994)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Ludwig whose telephone number is 571-272-4127. The examiner can normally be reached on 9:00am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on 571-272-4124. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML

August 3, 2005

*William L. Bashore*  
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PRIMARY EXAMINER  
8/4/2005